UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/434,404	11/05/1999	ATSUSHI MATSUMOTO	862.3194	3919

5514 7590 04/30/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
POKRZYWA, JOSEPH R	
ART UNIT	**PAPER NUMBER**
2622	

DATE MAILED: 04/30/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/434,404	Applicant(s) MATSUMOTO ET AL.	
	Examiner Joseph R. Pokrzywa	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/13/04 has been entered.

Response to Amendment

2. Applicant's amendments received on 1/15/04 and 2/18/04 have been entered and made of record. Currently, **claims 1-17 and 26** are pending.

Response to Arguments

3. Applicant's arguments filed on 1/15/04 and 2/18/04, with respect to the rejection of newly amended independent **claims 1, 11, 12, and 17**, under 35 U.S.C. 102(b), cited as being anticipated by LeClair *et al.* (U.S. Patent Number 5,822,510), have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fukaya (U.S. Patent Number 6,275,303).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-17, and 26** are rejected under 35 U.S.C. 102(e) as being anticipated by Fukaya (U.S. Patent Number 6,275,303).

Regarding ***claim 1***, Fukaya discloses an image processing apparatus (printer 120, seen in Fig. 1), comprising means for generating a bitmap image on the basis of inputted object data (column 1, lines 23 through 51, and column 6, line 25 through column 7, line 26), means for holding attribute information representing plural types of attributes of the inputted object data in units of pixels of a bitmap image generated by the generation means (column 6, line 46 through column 7, line 27), the attribute information being formed by allocating plural bits of each pixel of the bitmap image (column 7, lines 7 through 63), means for converting the bitmap image generated by the generation means into data capable of being processed by an image output unit (column 9, lines 9 through 61), and means for switching the contents of processing in the conversion means on the basis of a combination of the plural types of attributes represented by the attribute information held by the hold means (column 6, lines 29 through 41, and column 9, line 62 through column 10, line 31).

Regarding ***claim 2***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the holding means holds an attribute map in which the attribute information

is arranged for each pixel corresponding to a two-dimensional coordinate position of the bitmap image (column 5, lines 43 through 63, and column 6, lines 12 through 24).

Regarding ***claim 3***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the holding means embeds the attribute information into bits of a part of each pixel data of the bitmap image (column 5, lines 43 through 57, and column 6, line 46 through column 7, line 27).

Regarding ***claim 4***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the attribute information includes information representing whether object data corresponding thereto has the form of bitmap data (column 5, line 43 through column 7, line 27) or the form of vector data.

Regarding ***claim 5***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the conversion means includes processing for converting a bitmap image generated by the generation means into binary data using a dither matrix (column 6, lines 25 through 41, and column 8, line 1 through column 9, line 45), and the switching means changes the dither matrix used in the conversion means on the basis of the attribute information (column 1, line 23 through column 2, line 6, column 6, lines 25 through 41, and column 9, lines 62 through 67).

Regarding ***claim 6***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the generation means generates a bitmap image based on RGB color space (see Fig. 7, and column 6, lines 46 through 61, wherein color images transmitted to printer 120 would inherently be based on a RGB color space within the computer 110 so as that images are displayable), the conversion means includes color conversion processing for converting each

pixel data of the bitmap image into pixel data represented by YMCK color space (column 7, lines 7 through 27, and column 9, lines 5 through 57), and the switch means changes an algorithm of the color conversion processing on the basis of the attribute information held by the holding means (column 1, line 23 through column 2, line 6, column 6, lines 25 through 41, and column 9, lines 62 through 67).

Regarding ***claim 7***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the attribute information is configured by a plurality of bits (column 8, lines 1 through 44, and column 9, lines 8 through 45), and the switch means switches the contents of processing of the conversion means in accordance with a combination of ON/OFF states of each bit (column 8, lines 1 through 44, and column 9, lines 5 through 67).

Regarding ***claim 8***, Fukaya discloses the apparatus discussed above in claim 7, and further teaches that each bit of the attribute information represents an independent attribute (see Figs. 3A-3H).

Regarding ***claim 9***, Fukaya discloses the apparatus discussed above in claim 7, and further teaches that the attribute information contains a bit group representing a specific attribute using a plurality of bits (see Figs. 3A-3H).

Regarding ***claim 10***, Fukaya discloses the apparatus discussed above in claim 1, and further teaches that the object data is represented by page description language (column 1, lines 24 through 34, and column 5, lines 23 through 42).

Regarding ***claim 11***, Fukaya discloses a storage medium for storing a control program for image processing (column 4, line 23 through column 5, line 22, and column 11, lines 1 through 18), the control program comprising codes for a generation process for generating a bitmap

image on the basis of object data inputted (column 1, lines 23 through 51, and column 6, line 25 through column 7, line 26), codes of a holding process for holding attribute information representing plural types of attributes of the inputted object data in units of pixels of a bitmap image generated in the generation process for holding in a memory (column 6, line 46 through column 7, line 27), the attribute information being formed by allocating plural bits of each pixel of the bitmap image (column 7, lines 7 through 63), codes of a conversion process for converting the bitmap image generated in the generation process into data capable of being processed by an image output unit (column 9, lines 9 through 61), and codes of a switching process for switching the contents of processing in the conversion process on the basis of a combination of the plural types of attributes represented by the attribute information held by the holding process (column 6, lines 29 through 41, and column 9, line 62 through column 10, line 31).

Regarding ***claim 12***, Fukaya discloses an image processing system (see Fig. 1) having a host device (computer 110) and an image output unit (printer 120), comprising means for generating a bitmap image on the basis of inputted object data (column 1, lines 23 through 51, and column 6, line 25 through column 7, line 26), means for holding attribute information representing plural types of attributes of the inputted object data in units of pixels of a bitmap image generated by the generation means (column 6, line 46 through column 7, line 27), the attribute information being formed by allocating plural bits of each pixel of the bitmap image (column 7, lines 7 through 63), means for converting the bitmap image generated by the generation means into data capable of being processed by an image output unit (column 9, lines 9 through 61), and means for switching the contents of processing in the conversion means on the basis of a combination of the plural types of attributes represented by the attribute

information held by the hold means (column 6, lines 29 through 41, and column 9, line 62 through column 10, line 31).

Regarding ***claim 13***, Fukaya discloses the system discussed above in claim 12, and further teaches that the attribute information includes information organized hierarchically (see Figs. 3A-3H), and wherein there are one or more units of attribute information of low order concept which is subordinate to that of high order concept (see Figs. 3A-3H, column 5, line 27 through column 6, line 41, and column 6, line 62 through column 7, line 53).

Regarding ***claim 14***, Fukaya discloses the system discussed above in claim 12, and further teaches that the attribute information contains information representing whether object data corresponding thereto represents a monochrome or a color object (column 5, lines 36 through 42, and column 7, lines 7 through 27).

Regarding ***claim 15***, Fukaya discloses the system discussed above in claim 12, and further teaches that the attribute information contains information representing whether object data corresponding thereto represents a character or any kind of object other than characters (see Figs. 3A-3H, column 5, line 27 through column 6, line 41).

Regarding ***claim 16***, Fukaya discloses the system discussed above in claim 12, and further teaches that the attribute information contains information representing whether it has a single bit or a plurality of bit strings (see Figs. 3A-3H, wherein depending upon the command number, different bit strings follow that represent various attributes) and whether or not it is a ground, and wherein the conversion means omits processing for a pixel which is a ground (column 9, lines 8 through 49).

Regarding ***claim 17***, Fukaya discloses an image processing method (see Figs. 1, 2, and 7), comprising the steps of generating a bitmap image on the basis of object data inputted (column 1, lines 23 through 51, and column 6, line 25 through column 7, line 26), holding in a memory attribute information representing plural types of attributes of the inputted object data in units of pixels of a bitmap image generated in the generating step (column 6, line 46 through column 7, line 27), the attribute information being formed by allocating plural bits of each pixel of the bitmap image (column 7, lines 7 through 63), converting the bitmap image generated in the generating step into data capable of being processed by an image output unit (column 9, lines 9 through 61), and switching the contents of processing in the converting step on the basis of a combination of the plural types of attributes represented by the attribute information held in the holding step (column 6, lines 29 through 41, and column 9, line 62 through column 10, line 31).

Regarding ***claim 26***, Fukaya discloses an image processing apparatus (printer 120, seen in Fig. 1), comprising a bitmap image generator (CPU 21), arranged to receive inputted object data and to produce a corresponding bitmap image (column 1, lines 23 through 51, and column 6, line 25 through column 7, line 26), a data holding unit (RAM 23) arranged to receive and to hold attribute information representing plural types of attributes of the inputted object data in units of pixels of the bitmap image generated by the bitmap image generator (column 6, line 46 through column 7, line 27), the attribute information being formed by allocating plural bits of each pixel of the bitmap image (column 7, lines 7 through 63), a converter (CPU 21) adapted to convert the bitmap image generated by the bitmap image generator into data capable of being processed by an image output unit (column 9, lines 9 through 61), and a switch unit (CPU 21), adapted and arranged to switch the contents of processing in the converter on the basis of a

combination of the plural types of attributes represented by the attribute information held by the data holding unit (column 6, lines 29 through 41, and column 9, line 62 through column 10, line 31).

Citation of Pertinent Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Bearss *et al.* (U.S. Patent Number 6,678,426) discloses a system for rendering bitmap data for printing by mapping data depending on resolutions.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrp

EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600